

## **REMARKS**

### **Teleconferences with the Examiner**

On August 17, 2004, and again on August 19, 2004, teleconferences were held with the Examiner. During those conferences the applicant's invention was discussed in light of the Office Action and Advisory Action. Attorney for applicant indicated that he believed that no cited reference teaches the instant invention and, more particularly, no cited reference teaches the embodiment of the instant invention that embeds a changeable list of permitted video channel numbers in a non-visible scan line. With respect to the use of the overscan portion of the video signal for transmission of data (as distinguished from using the VBI portion of the video signal), attorney for applicant understood the Examiner to concede that no cited reference discloses this embodiment, provided that the term "non-visible scan line" is changed to refer to the "overscan" region of the video signal (or, alternatively, to refer to a scan line outside of the "active" region of the video signal), but that he would want to do additional searching before agreeing to allow this language to issue.

### **Incorporation by Reference**

The arguments set forth with applicant's Response to Office Action filed April 22, 2004, are incorporated by reference herein as if fully set out at this point.

## **AMENDMENTS TO THE CLAIMS**

Claims 17, 22, 28-30, 37, and 39 have been amended to set out more clearly the invention that applicant claims as his own. In more particular, this amendment makes clear that applicant has always intended that the data (e.g., channel numbers, security codes, etc.) that is transmitted

must fall outside of the active region of the video signal, where active region is taken to mean that portion of the video signal that is viewable on a display device such as a conventional television. This disclosure is fully disclosed in the specification at, for example, lines 13-16, page 26. As such, the instant claim amendments do not constitute new matter.

Additionally, claim 39 has been modified to reflect the well known fact that non-visible overscan scan lines can be found at the top and/or at the bottom of a video image. As such, the instant claim amendments do not constitute new matter.

## **CLAIM OBJECTIONS AND REJECTIONS (OFFICE ACTION)**

### **Rejections under 35 U.S.C. 103(a)**

#### **Paragraph 3**

According to Paragraph 3 of the Office Action, Claim 17 stands as rejected under 35 USC 103(a) as being unpatentable over Perlman (USPN 6,125,259), in view of Collings (USPN 5,838,402) and Wagner (USPN 5,761,602). It is said that, considering claim 17 as-amended, it reads on the operation of the video blocking apparatus set-top convert 507 STC as shown in Figure 4 of Perlman, which is further said to be provided with a changeable list of permitted video channel numbers in a remote-end RM (remote module). It is further said that a user is allowed to choose a list of channels that are permitted to be viewed and that TV signals are delivered from the STC 507 to the TV set via a baseband signal. The claimed means for changing the first tuner to receive a different video channel is aid to be necessarily included in Perlman. It is still further said that the claimed CPU that senses the tuner and determines whether a selected channel is in the changeable list is met by microprocessor 301 of Perlman. The ability to display a graphic when a non-permitted channel is selected is said be taught by

Collings. It is said that it would have been obvious to modify Perlman with the technique of switching to a graphic image as taught by Collings.

Finally, it is said that, with respect to the amended claim feature of having a changeable list of video channel numbers that is transmitted within at least one scan line of a video signal, the Perlman reference teaches that EPG (electronic programming guide) data may be transmitted on an out-of-band channel (col. 6, lines 49-65) and that this reference, taken in combination with Wagner's teaching (col. 3, lines 45-60 and col. 6, lines 52-64) that at least a portion of a full video channel can be used to transmit data, provides this limitation.

Thus, the Examiner has rejected the instant case, asserting that it would be have been obvious for one of ordinary skill in the art to modify the combination of Perlman / Collings with the technique of transmitting data over at least one scan line as taught by Wagner, with the further claimed feature of extracting from the scan line the embedded portion of the changeable list of permitted channels taught by Perlman & Wagner.

In reply, and in view of the claim amendments offered above, it is believed that the previous rejection is moot. More particularly, none of the references above teach transmitting a list of permitted channels *embedded* within at least one scan line in the overscan portion of a video signal. Nor is there a suggestion or teaching in any of the cited references that data (of any kind) can or should be inserted *into an individual scan line* – that is part of a standard video broadcast signal – for use by a remote module, much less a suggestion or teaching that a list of permitted channels might be so inserted.

As a consequence, it is believed that the claims as-amended overcome the instant rejection and place this case in condition for allowance.

**Paragraph 4**

With respect to Examiner's Paragraph 4, Claims **22**, and **28-39** stand as rejected under 35 USC 103(a) as being unpatentable over Perlman, Collings & Wagner, and further in view of Sprague (USPN 5,247,757). It is said that the combination Perlman and Collings teaches transmitting authorization codes to a user premise, enabling reception of certain channels / programming. It is further said that Sprague, which is said to be directed to transmitting authorization data to subscribers in a video distribution system, teaches each user maintaining a unique key code that enables decoding of authorized material addressed to the subscriber (col. 9, lines 40-54). In order to decode appropriate authorization data, it is said that the terminal's encryption/decryption key code is compared with authorization data within the transmitted access control data. It is said that it would have been obvious for one of ordinary skill in the art to modify Perlman and Collings with individual security codes for each terminal.

It is further said that Sprague also teaches that security data and authorization data may be transmitted within the VBI of a TV signal and comparing a security key extracted from the VBI. Wagner is said to provide the teaching that data which is generally transmitted using the VBI of a video signal may, optionally, be delivered on the main video channel spectrum.

It is further said that, with respect to the claimed feature of identifying at least one of a plurality of RMs for receiving a changed list of permitted video, the recited figure reads on the disclosure of Perlman that the user's terminal's scrambler module 309 receives authorization status codes of all channels that *are receivable* (emphasis in Office Action) by the user terminal. These codes are said to define, "i.e. list the channels" that are permitted for viewing by each individual subscriber.

It is further said that, regarding the claimed feature of transmitting the changed list of programs over predetermined scan lines, Official Notice is taken (and accepted by applicant) that at this time it was known to detect any particular scan line of a video image. It is further said that it would thus have been obvious to operate the combination of references in a manner in which the first scan line of the video signal is detected, at least as a way to synchronize the reception of embedded data.

Finally, it is further said that the claimed feature of determining whether a newly selected channel is among the list of permitted channels and, if so, displaying it, is met by the operation of Perlman (col. 10, lines 12-48).

In reply, and in view of the claim amendments offered above, it is believed that the previous rejection is moot. More particularly, none of the references above teach transmitting a list of permitted channels *embedded* within at least one scan line in the overscan portion of a video signal. Nor is there a suggestion or teaching in any of the cited references that data (of any kind) can or should be inserted *into an individual scan line* – that is part of a standard video broadcast signal – for use by a remote module, much less a suggestion or teaching that a list of permitted channels might be so inserted.

As a consequence, it is believed that the claims as-amended overcome the instant rejection and place this case in condition for allowance.

#### Rejection of Claims 22, 28, and 37

Claims 22, 28, and 37 stand as rejected under 35 USC 103(a). For all of the reasons identified above, applicant believes that rejection of these claims is inappropriate and should be

withdrawn. None of these references – individually or in combination – suggest the embedding within a the overscan portion of the video scan line of a list of permitted video channels. The assertion (page 7 of the Office Action) by the Examiner that Wagner's use of the video band for data transmission necessarily implies that he embeds permitted channel numbers within a standard video scan line in the sense of applicant is just not true: Wagner never teaches of suggests the use of embedded information within a standard scan line. To say it still another way, the fact that Wagner may deliver data via the “video channel spectrum” does not imply that he does so by embedding information within a conventional scan line as applicant has done.

As a consequence, and in light of the discussion and amendments presented above, it is believed that rejection of these claims is inappropriate and should be withdrawn.

#### Rejection of Claim 29

Claim 29 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim as-amended is inappropriate and should be withdrawn. Further, applicant would vigorously dispute the Examiner's assertion that “the claimed non-visible scan line reads on the VBI disclosed in Sprague.” Of course, there is a clear distinction between the VBI and the scan line itself, as is well known to those of ordinary skill in the art. Indeed, applicant has steadfastly contended that the VBI is *not* a scan line. Thus, applicant's embedding of a list of permitted video channels within the a standard video scan line does not read on Sprague's use of the VBI to transmit authentication information: applicant just transmits his data in a manner that is different form Sprague and from the other art cited by the Examiner.

### Rejection of Claim 30

Claim 30 (and perhaps also Claims 17 and 22) stands as rejected under 35 USC 103(a).

For all of the reasons identified above, applicant believes that rejection of this claim and/or Claims 17 and 22 as-amended is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of an actual overscan standard video scan line – as opposed to the well known technique of sending data during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

### Rejection of Claim 31

Claim 31 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim as-amended is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of a standard video scan line – as opposed to the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

### Rejection of Claim 32

Claim 32 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim as-amended is inappropriate and should be withdrawn. In brief, none of the references cited by the Examiner teach or suggest the use of a scan line in the overscan portion of the image– as opposed to using the video signal during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

**Rejection of Claim 33**

Claim 33 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim as-amended is inappropriate and should be withdrawn. None of the references cited by the Examiner teach or suggest the use of a scan line in the overscan portion of the image— as opposed to using the video signal during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

**Rejection of Claims 34 and 36**

Claim 34 and 36 stand as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which these claims depend, applicant believes that rejection of these claims as-amended is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of an actual overscan video scan line – as opposed to the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

**Rejection of Claim 35**

Claim 35 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim as-amended is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of a standard overscan scan line – as opposed to the time during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

**Rejection of Claim 38**

Claim 38 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim as-amended is inappropriate and should be withdrawn. None of the cited references teach

or suggest the use of an actual standard video scan line – as opposed to the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

### **CLAIM OBJECTIONS AND REJECTIONS (ADVISORY ACTION)**

#### **Paragraph 1**

The Examiner indicates that applicant's contention that the Final Rejection was premature has been considered but is not persuasive. Without conceding this point, applicant believes that the filing of the instant RCE has made the previous contention moot. However, applicant specifically reserves the right to contest this issue again if for some reason it becomes material in the instant RCE case.

#### **Paragraph 2**

The Examiner indicates applicant's argument that the motivation provided by the Examiner for modifying Perlman with Wagner, in order to take advantage of higher bandwidth TV channel over a VBI channel is not applicable to applicant's invention. Without conceding this point, applicant believes that the amendments offered herein have made the previous contention moot and/or the rejection has been overcome by the arguments offered previously. That being said, applicant specifically reserves the right to argue this point again if it becomes relevant in the instant RCE case.

More particularly, the instant amendments have made it clear that applicant's invention uses the non-visible scan lines of a video signal (e.g., overscan lines) in the transmission of data from a head end to a remote module. This concept is not taught in either of the cited references. Note that applicant has distinguished between the use of an actual scan line as opposed to sending data during the VBI, HBI, use of a full video channel, a partial video channel, etc. Further there is no indication in either reference that data values may be embedded within a

standard video signal without corrupting the viewing of such signal by using the non-visible scan lines in the overscan portion of the video signal. As a consequence, and in view of the amendments offered herein, it is believed that the claims as-amended are in condition for allowance. That being said, applicant specifically reserves the right to argue this point again if it becomes relevant in the instant RCE case.

### Paragraph 3

The Examiner indicates applicant's argument that the motivation provided by the Examiner for modifying Perlman with Wagner, in order to take advantage of higher bandwidth TV channel over a VBI channel is not applicable to applicant's invention. Without conceding this point, applicant believes that the amendments offered herein have made the previous contention moot and/or the rejection has been overcome by the arguments offered previously. That being said, applicant specifically reserves the right to argue this point again if it becomes relevant in the instant RCE case.

More particularly, the instant amendments have made it clear that applicant's invention uses the non-visible scan lines of a standard video signal (e.g., the overscan lines) in the transmission of data – including a changeable list of permitted video channels and security keys – from a head end to a remote module. This concept is not taught in either of the cited references. Further there is no indication in either reference that data values may be embedded within one or more scan lines (as opposed to using the VBI, etc.) of a standard video signal without corrupting the viewing of such. As a consequence, and in view of the amendments offered herein, it is believed that the claims as-amended are in condition for allowance.

Paragraph 4

The Examiner indicates applicant's discussion of the rejection using Sprague and applicant's contention that the number of references combined is excessive has been considered and not found to be convincing. Without conceding this point, applicant believes that the filing of the instant RCE has made the previous contention moot and/or the rejection has been overcome by the arguments offered previously. That being said, applicant specifically reserves the right to argue this point again if it should become relevant in the instant RCE case.

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In view of the foregoing, it is submitted that the claims as-amended herein are in condition for allowance. Early and favorable action is, therefore, earnestly solicited.

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This paper is intended to constitute a complete response to the outstanding Office Action.

Please contact the undersigned if it appears that a portion of this response is missing or if there remain any additional matters to resolve. If the Examiner feels that processing of this application can be expedited in any respect by a personal conference, please consider this an invitation to contact the undersigned by telephone at the number listed below.

Respectfully submitted,

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Terry L. Watt Date

Registration No.: 42,214

Fellers, Snider, Blankenship, Bailey &  
Tippens

The Kennedy Building  
321 South Boston, Suite 800

Tulsa, OK 74103-3318

Phone: (918) 599-0621

Fax: (918) 583-9659